

No 11

232 Walnut

An Inaugural Essay

On

Dated March 1828

Indigestion,

For the degree of Doctor of Medicine

In the

University of Pennsylvania,

By

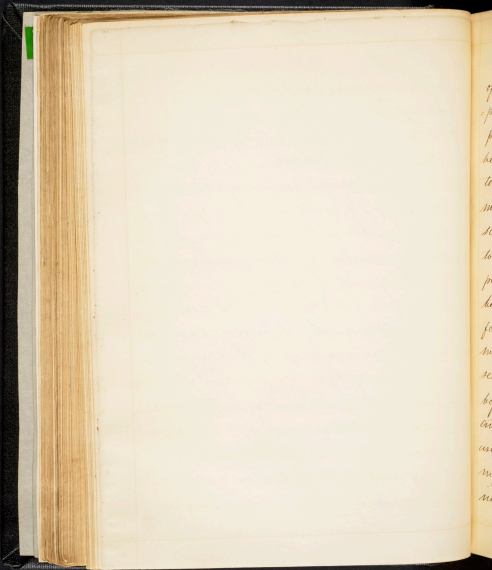
John A. Wragg

of

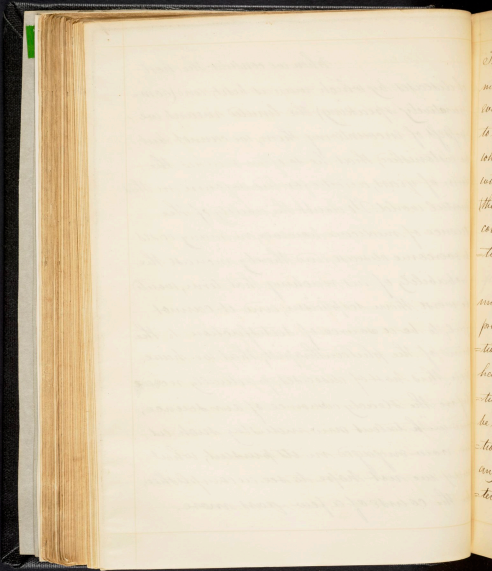
Charleston South Carolina.

Jan 8th 1828

Then to consider the
of success by which some at least will be
continually spending the limited amount we
possess of in acquiring them or would but
be disappointed that he is often richer than
many of great wealth for his resources are the
market would. It is not the ability of the
science of medicine, however, in many cases
in common sense, and the degree of the
probability of its success, but the
to which there is a strong, and it cannot
fail to be a source of disappointment. The
view of the patient's progress, that we have
not had of the disease, particularly in cases
before the steady advance of the disease
and with talent and industry, such as
we should expect are all pending, what
may we not hope to see accomplished
in the course of a few years more.

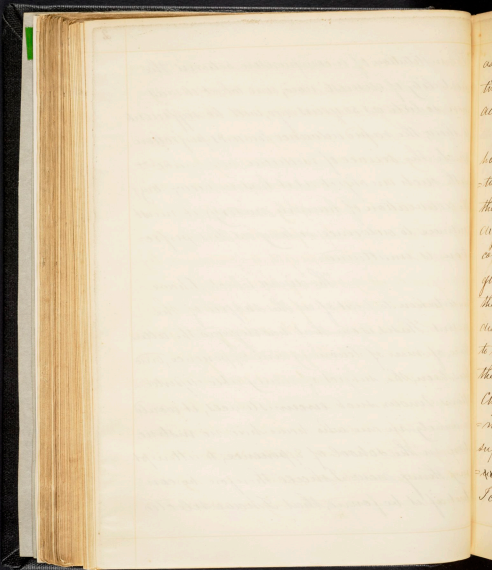


When we consider the host
of diseases by which man is beset, and (com-
paratively speaking) the limited means we
possess of encountering them, we cannot but
be astonished, that he so often reaches the
term of years, allotted for his sojourn in this
mortal world. To doubt the ability of the
science of medicine, however, in many cases
to overcome disease, and thereby increase the
probability of his reaching that term, would
be worse than scepticism; and it cannot
fail, to be a source of satisfaction to the
mind of the philanthropist, that we have
seen this host of diseases, gradually recede
before the steady advance of our science;
and with talent and industry such as
are now engaged in its pursuit, what
may we not hope to see accomplished,
in the course of a few years more.



The institution of a comparison between the mortality of disease now, and what it was even so late as 50 years ago, will be sufficient to show the rapid advance towards perfection which the science of medicine has made & with such an object as it has in view, (viz) the alleviation of human misery, it must continue to advance so long as this perfection is unattained.

The disease which I have undertaken to treat of as the subject of the present Thesis, is one that has engaged the attention of men of learning and experience, and has been the subject of many able dissertations. Under such circumstances, it would be vanity in me who have had no instruction in the school of experience, to attempt any thing new. I shall therefore be content if it be found, that I have selected



as my authority, men, who have devoted their time and talents to, and are universally acknowledged, as standard on the subject.

It is necessary before we can have any correct views concerning Indigestion and the diseases consequent thereon, that we should thoroughly understand the digestive process. I propose therefore, in the compilation of these pages, to commence by giving, a cursory view of that process, and then proceed to speak of Indigestion, as a disease. Digestion in Physiology is defined to be, that change the food undergoes in the stomach, by which it is converted into Chyme. Its immediate object, is the formation of Chyme, a matter destined to supply the continual waste in the ~~vegetable~~ ~~animal~~ economy. I conceive it foreign to my purpose, to

enter a minute detail, of the anatomy of
 the different parts concerned in the digestive
 process. I shall therefore in treating of
 digestion, merely advert, to the changes the
 food undergoes while, in the stomach.
 The actions which by their union constitute
 digestion, are several. The food is first receiv-
 ed into the mouth there to be masticated,
 and impregnated with saliva. From
 thence it is propelled into the stomach,
 through the oesophagus, by the act of de-
 glutition, there to be converted into chyme,
 by the action of the gastric juice. By
 the muscular contractions of the stomach,
 this mass is then forced into the duode-
 num, where it receives the pancreatic
 juice and bile, and is then fit to be
 acted upon, by the lacteals. That the
 juice secreted by the stomach is not

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only capable of reducing food taken into
 that organ to chyme, but also of acting
 upon inanimate animal matter with-
 out the body, has been clearly proved, by
 the experiments of Spallanzani and
 others. These experiments seem to put it
 beyond a doubt, that it is through the
 agency of this, (the gastric juice) that the
 contents of the stomach are fitted, to pass
 into the duodenum, there to undergo
 other changes, preparatory to their being
 taken up by the lacteals. And such is
 the power of this fluid, that, (according to
 Mr Hunter) it is only through the agen-
 cy of the vital principle, that the sto-
 mach itself is enabled to resist its
 influence — for no sooner is it deprived of
 that principle, than it, like all other in-
 animate animal matter, becomes in-

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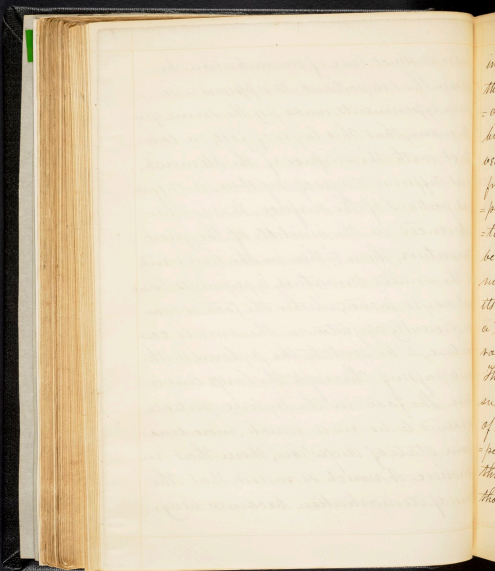
capable of withstanding its solvent power,
and is corroded by it. That this is the case
Mr Hunter had an opportunity of seeing
demonstrated, not only in the inferior
orders of animals, but in man himself.
In a man who was accidentally killed im-
mediately after eating a full meal, he
found, that a portion of the stomach was
corroded, while the food he had just taken,
remained wholly uncorroded. It appears
from experiments made by Wilson Philip,
that the stomach is only acted upon, where
there has been an unusually large sup-
ply of the gastric juice, as where an
uncommonly large meal has been
made, immediately before death - and
hence, in protracted cases of disease,
where that organ has been long emptied
of its contents, and there is only a

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small secretion of this fluid, and that of
so unhealthy a nature, as to be incompe-
tent to the solution of ever so small a
quantity of the most digestible matter
if taken into it, we never find that
its structure is affected. The different por-
tions of the stomach, have been found by
Mr. Philip, to possess the digestive power, in
different degrees of perfection. On exam-
ining the stomachs of numerous Rab-
bits killed, with the digestive process at
different stages of advancement, he found
that that portion of food, in contact
with the surface of the stomach, was
uniformly in a more advanced stage,
than that which was more remote
from it. Indeed this was so strikingly
manifest, that unless the animal
had fasted for a very long time, there

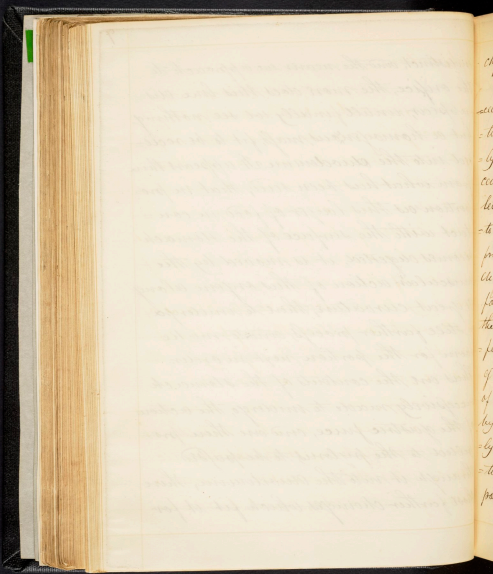
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shows a distinct line of demarkation be-
 -tween the two portions. It appears also
 from experiments made by the same gen-
 -tleman, that this layer of food in con-
 -tact with the surface of the stomach,
 is at different stages of digestion, at differ-
 -ent portions of the surface. It is farther
 advanced in the middle of the great
 curvature, than either in the large end,
 or the small curvature. Experiments have
 not as yet proved, whether the food is ever
 sufficiently digested in the small car-
 -vature, to be sent to the pylorus, with-
 -out passing through the large curva-
 -ture. The food in the pyloric portion,
 is found to be in a much more uni-
 -form state of digestion, than that in
 the antrum. So much so indeed, that the
 line of demarkation becomes very



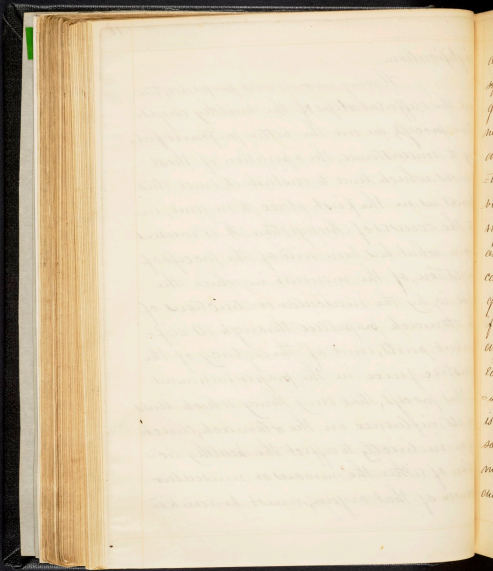
indistinct, and the nearer we approach to the orifice, the more does this line disappear, untill finally we see nothing but a homogeneous mass, fit to be retracted into the Duodenum. It appears then from what has been said; that in proportion as this layer of food in contact with the surface of the stomach becomes digested, it is moved by the muscular action of this organ along its great curvature, there to undergo a still farther process, and to make room for the portion next in order.

Thus are the contents of the stomach successively made to undergo the action of the gastric juice, and are then propelled to the pylorus, to be passed through it into the Duodenum, there those farther changes which fit it for

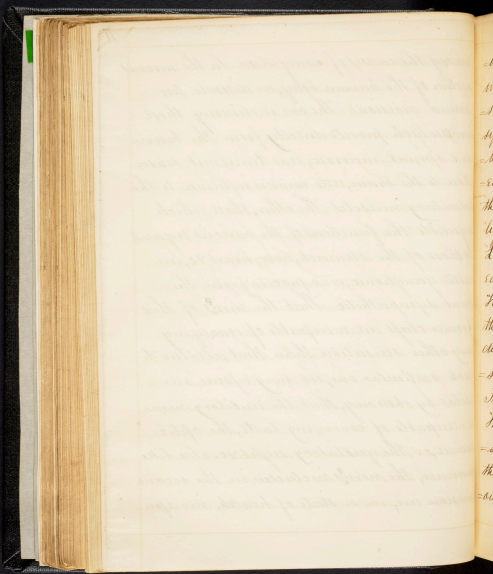


chylification.

Having now as was proposed, traced the different steps of the healthy digestive process, we are the better prepared fully to understand, the operation of those causes which tend to disturb it, once this leads us in the first place to enquire, into the causes of Indigestion. It is evident from what has been said of the process of digestion, of the manner in which the food is, by the muscular contractions of the stomach propelled through its different parts, and of the efficacy of the gastric juice in the proper fulfilment of this process, that any thing which tends by its influence on the stomach, directly or indirectly to affect the healthy action of either the nervous or muscular power of that organ, must be ranked



among the causes of indigestion. In the nervous system of the human body, we discover two grand divisions. The one including those nerves which proceed directly from the brain and spinal marrow, and transmit sensation to the brain, and nervous influence to the voluntary muscles. The other, those which regulate the functions of the various organs, as those of the stomach, liver, heart &c, are called ganglionic, and proceed from the great sympathetic. That the nerves of this former class are incapable of conveying any other sensation than that allotted to each particular one, we may assure ourselves by observing, that the auditory nerve is incapable of conveying taste, the optic sound, or the gustatory sight &c. In like manner, the nerves included in the second division are, in a state of health, incapa-



-ble of transmitting sensations, and it is not
 -until they become diseased, that we are con-
 -scious of their existence, as a part of our
 -system. Johnson in his work on the mor-
 -bid sensibility of the stomach and bow-
 --els says, "the stomach is as sensible to
 -the stimulus of food as the retina is to
 -light, but we feel nothing of the impression.
 -Let any one attentively observe when he
 -eats plain food, or swallows plain drink
 -He feels both of these in his mouth; but
 -the moment that either of them passes
 -down the oesophagus, he is quite uncon-
 -scious of its presence in the stomach.
 -It is so with all the internal organs.
 -The lungs feel the air, but we are uncon-
 -scious of its presence in the air cells;
 -the heart feels the stimulus of blood, with-
 -out our knowledge and so of all the other

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organs, while the intellectual system is quite unconscious of all these sensibilities. But says & f- let us go a step further. Swallow a tea-spoonful of tincture of capsicum, or a wine-glassful of brandy, and then we feel not only a burning sensation in the mouth and throat, but a certain degree of the same sensation in the stomach. Simple as this experiment may appear, and unimportant any conclusion thence resulting, it nevertheless unfolds one of the most fundamental views in pathology, and one of the most useful precepts in the art of preserving health. The moment we call forth conscious sensation in the stomach, whether that be of a pleasurable or painful kind, we offer violence to that organ, however slight may be the degree. Let us view the matter closer. We take an abste-

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=mious meal of plain food, without any stimu-
 =lating drink. Is there any conscious sensa-
 =tion produced thereby in the stomach? I
 say, no. We feel a pleasurable sensation
 throughout the whole frame, especially if we
 have fasted for some time previously, but
 no distinct sensation in the stomach.

There is not—there ought not to be any con-
 =scious sensibility excited in this organ
 by the presence of food or drink, in a state
 of health; so true is this observation, that
 to feel we have a stomach is no good
 sign." It is evident according to the above
 view of the subject, how slight may be
 the causes which produce indigestion,
 and how careful we should be to guard
 against them. Only take any substance
 into the stomach which will irritate its
 nerves, and we irritate its secretions, and

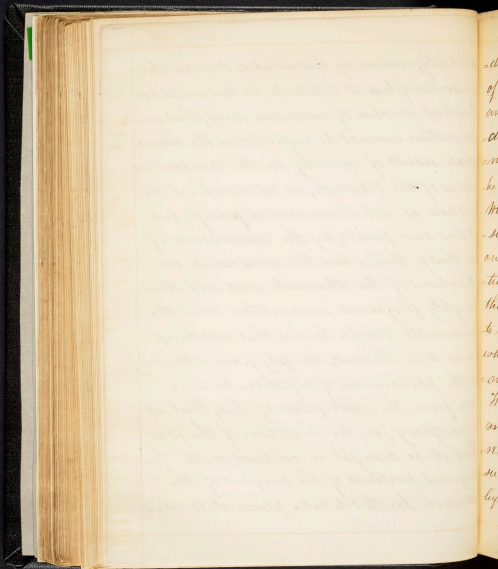
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as Dr Johnson says, become conscious we have a stomach, which consciousness assures us that disease exists in it.

Most writers agree in dividing the causes of this disease into two kinds. The first or remote, which act either by affecting the secretory power of the stomach and thereby preventing the proper chemical change from taking place in the food, or by debilitating its muscular power, so that although the food as far as it has been brought in contact with the surface is properly digested, yet on account of this muscular debility, the different portions are not made successively to pass through those parts which it is necessary they should, in order to become fitted for their ultimate destination, nor are they regularly discharged through the pylorus; and the second or proximate, which

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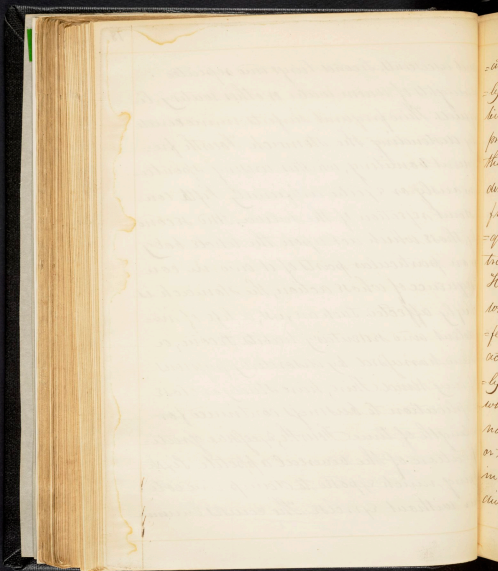
is debility, induced by this want of tone in the muscular fibres. Dr Caldwell in his notes on Cullen's practice of medicine says, that indigestion cannot be regarded as the immediate result of debility in the muscular fibres of the stomach, in as much as digestion is not a muscular process; but it has been proved by the experiments of Mr Philip, that when the muscular contractions of the stomach were not thoroughly performed indigestion was the invariable result. Indeed this wants appear to be the case, simply from attending to the phenomenon of digestion. We have seen from the description of this, that it is necessary for the digestion of the food that it be brought in contact with the different portions of the surface of the stomach. For this to take place it is evi-



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= directly necessary, that the muscular action
of that organ be entire. Hence I think we
are fully warranted with Dr Cullen in ad-
= ducing muscular debility, as a prox-
= imate cause of indigestion, though as
he observes, it is certainly not the only one.
We next proceed to point out those cau-
= ses of indigestion, which by their action
on either of the above mentioned func-
= tions of the Stomach, tend to induce
that state of atony we have said is
to be considered as the proximate; and
which are to be considered as the re-
= mate causes of the disease.

These according to Dr Cullen's division,
are of two sorts. First, those which act di-
= rectly and immediately on the Stomach,
such as 1st Tea, Coffee, Tobacco, Spirituous
liquors, opium, Bitters, Aromatics, Acridities

and ascents. Second large and repeated draughts of warm water or other watery liquors. Third frequent surfeits moderated by distending the stomach. Fourth frequent vomiting, whether arising spontaneously or excited artificially. Fifth constant rejection of the saliva. And secondly, those which act upon the whole body or on particular parts of it and in consequence of whose action, the stomach is chiefly affected. Such are first, a life of indolent and sedentary habits. Second, a mind harassed by disorderly passions of any kind. Third, hard study or close application to business continued for a length of time. Fourth, excessive gratification of the mineral appetite. Fifth being much exposed to damp and cold air without exercise. The causes enumerated



-ated under the second division, may incident-
-ly affect other parts than the stomach;
but as this organ is always found either
primarily affected, or sympathizing with
the affected parts, our practice should be
directed towards it, particularly when we
find that upon the disease being con-
-quered, there, it generally, becomes more
tractable in the other parts affected.

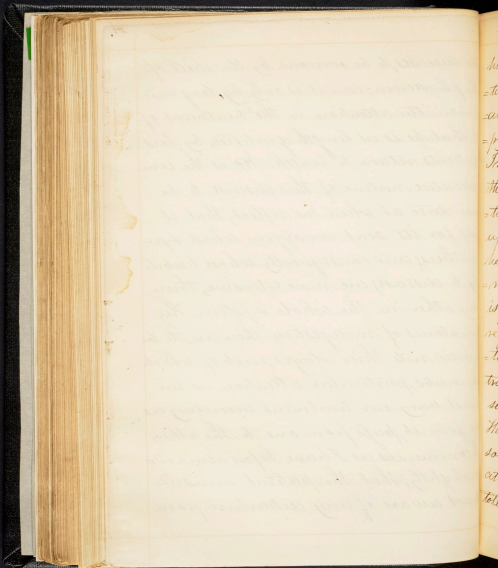
Having now enumerated those causes
which induce indigestion either by af-
-fecting the stomach primarily by their
action immediately on it, or secondari-
-ly by producing disease in other with
which this organ sympathizes, we are
now prepared to speak of their effects,
or the symptoms induced by them, and
in doing this I propose following the
divisions laid down by Mr Philip in

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his treatise on indigestion; and I am led to do this because his divisions tend to a material difference in the practice, necessary to be instituted for the cure of this disease. The disease of which we are now treating, is perhaps, one of the most complicated in the whole catalogue of practice. We find it commencing with symptoms so trifling in their nature, as not to attract the attention of even the patient himself, and frequently to elude the suspicion of the most experienced practitioner; and unless checked by the appropriate remedies, we see it gradually but steadily advancing, until finally it completely undermines the strength of the whole system, and becomes as we have said, at once one of the most complicated and difficult of

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the diseases, to be overcome by the skill of the physician; and it is only by long and unremitting attention in the treatment of it, that he is at length gratified, by his patients return to health. Not is the complicated nature of this disease to be considered at when we reflect, that it lies for its seat on an organ whose sympathy (and consequently whose liability to disease) are more extensive, than any other in the whole system. The symptoms of indigestion then are to be divided into three stages, each of which demands particular attention as we must vary our treatment according as we find it pass from one to the other. It commences as I have before remarked so slightly, that the patient himself is not aware of any departure from



his usual good health, and it is not until the symptoms have made considerable advances that he is induced to apply for relief.

In the commencement of the disease there is considerable flatulence & distention of the stomach. The patient finds upon rising from table, that although he has eaten much less than he was formerly in the habit of doing, yet there is great uneasiness in the epigastric region, with the peculiar feel of distention. His stomach is acid, and he is troubled ^{with} only eructations, which locate the sensation of scalding in the throat. This state of things may continue for some time without his paying much attention to them; he may even enjoy tolerable health while under the influ-

-ence of these symptoms, and may by proper
attention to his diet, eating sparingly and on-
-ly of such substances as are easy of diges-
-tion, restore the tone of his stomach with-
-out undergoing medical discipline. Gen-
-erally however, either from the greater de-
-gree of obstinacy attending the case, or
-from a want of proper attention to the
quantity and quality of food taken into
the stomach, these symptoms are kept
up and, as a consequence the other por-
-tions of the alimentary canal are found
to become implicated. The bowels become
costive, the mouth sticky with a bitter-
-ish taste, and the tongue furred, particu-
-larly in the morning. These symptoms
may, in the generality of cases be tempo-
-rarily removed by some gentle laxa-
-tive. In consequence however of the

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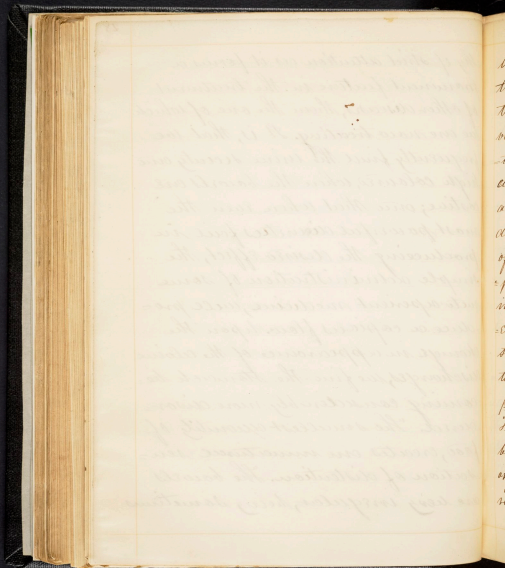
want of due attention to the quantity and
 quality of the ingesta, they again recur,
 attended now with some failure of
 strength, which induces the patient to
 turn his attention seriously to his
 state of health. He finds upon rising
 in the morning, that his sleep has
 been by no means a refreshing one,
 and that he is unequal ~~to the~~ ~~fatigues~~
 to the fatigues of the day. The mind as
 well as the body now becomes involved,
 and the patient often finds it impos-
 -sible to fix his attention on any ob-
 -ject. As may naturally ^{be} supposed, this
 disordered state of the stomach con-
 -not long exist, without other organs
 sympathizing in its distress. Hence
 we find the functions of the liver
 disordered, and its secretion is either

sparingly supplied, or else it is poured out
 in too lavish a manner. This state of
 things is pointed out, by the appearance
 of the alvine discharges. They either con-
 sist principally of uncombined bile,
 or they are unnaturally light colour-
 ed denoting its almost total absence;
 generally however they are preternatu-
 rally dark, and sometimes almost
 black. We sometimes find when there
 is a superabundant secretion from
 the liver, that the bile in consequence
 of the antiperistaltic motion of the
 duodenum, is thrown into the sto-
 mach, and hence we have nau-
 sea, head ach, and bilious vomit-
 ing. There can be no doubt, that the
 difference in the food taken makes
 some change in the colour of the

feces. This I have myself so often seen
 exemplified as to render it with me
 a matter of certainty, but that the
 bile, how this tendency, even to a much
 greater degree, I think is equally cer-
 -taining; nor do I think that the change
 made by the one, can ever be mista-
 -ken for that made by the other. As
 the disease advances we find other
 points sympathizing with the disor-
 -dered state of the stomach, and
 hence, we see the appearance of the
 urine materially changed from the
 healthy standard. Instead of being
 copious and pellucid, we find it scanty
 -ty and high coloured. It appears
 from observations made by Mr Philip,
 that when there is a prevalence of
 acidity in the stomach, the skin is

much less active than in our opposite
 state of this organ, and hence this ac=
 =idity not passing off by the perspire=
 =tion, we find a considerable deposit
 of it in the urine in the form of
 lactic acid. That when there is a pre=
 =dominance of alkali in the sto=
 =mach the skin is unusually ac=
 =tute, the urine becomes turbid, and
 deposits a white sediment which by
 analysis, is found to be a phosphate.
 Either of the above states of the urine
 may be found in indigestion but
 more frequently the former, in as
 much as our acid state of the stomac=
 =ch, is more usually met with in
 this disease. There is a remarkable
 sympathy existing, between the bow=
 =els and kidneys, which is well wor=

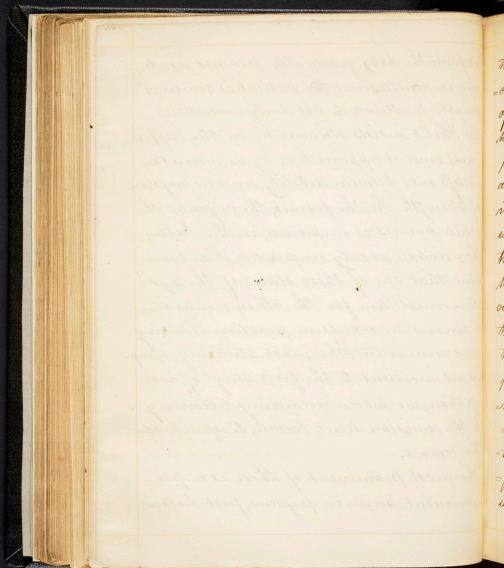
-thy of strict attention as it forms a
 prominent feature in the treatment
 of other diseases, than the one of which
 we are now treating. It is, that we
 frequently find the urine scanty and
 high coloured, when the bowels are
 costive; and that when even the
 most powerful diuretics fail in
 producing the desired effect, the
 simple administration of some
 milder aperient medicine, will pro-
 -duce a copious flow. Upon the
 change in appearance of the albine
 discharges, we find the stomach be-
 -coming considerably more disor-
 -dered. The smallest quantity of
 food, creates an immediate sen-
 -sation of distention. The bowels
 are very irregular, being sometimes



unnaturally loose, and at other times requiring cathartic medicines to move them. The matter discharged is very often watery, mixed with mucus and sometimes containing blood, and we find that cathartic medicines do not as easily effect a discharge as they formerly did. As the disease proceeds, owing to the morbid contents of the alimentary canal, the patient complains of increasing weakness, pains in the stomach and lower part of the bowels, and a sensation of burning in the stomach and bowels which it is difficult to get rid of. As it progresses, we find other parts sympathizing with the primæ viæ. These sympathetic affections, must of course be different in different cases. The digestive organs now become unequal to the requisite supply of nourishment, and hence

we find the body gradually becomes weak and emaciated, and the patient is rendered unable to attend to his daily avocations. Mr Philip insists strenuously on the difference (and it appears to be by no means a useless one) between debility and oppression of strength. In the former, the vigor of the vital powers is impaired, in the latter, their action is only impeded. It is evident that one of these states of the system mistaken for the other, would lead to serious mischiefs in practice. Having now enumerated the most striking symptoms incident to the first stage of inflammation, we proceed according according to the division twice over, to speak of the second.

The most prominent of these is a permanent pain on pressure, just below



the end of the stomach. It is extremely circumscribed, and never exists for any length of time without the pulse becoming hard, and it is this hardness of the pulse, that admonishes us to change our mode of treatment. There are others incident to this stage of the disease which would induce us to believe, that the simple irritation of the first stage, had passed on to inflammation. Such as an increase of thirst, partial sweats in the morning, inability of motion &c, but the principal indication is the hard pulse, and it is to this we owe to accommodate, the change in our treatment.

The symptoms of the third stage of indigestion, are such as arise from organic affections. To enter into a detail of these would lead us far beyond the limits we

are here necessarily confined to, and likewise
 involve us in the consideration of a large
 portion of the diseases to which the human
 race is subject. Suffice it here to say, that
 these organic affections though at first
 only symptoms of the advanced stage of in-
 digestion, yet when suffered to progress
 unattended to, become themselves diseases,
 the favourable termination of which is
 frequently extremely dubious. This fact has
 been happily compared, to the support
 which the branches of a tree receive from
 the trunk. "Cut down a tree before its
 roots have penetrated deeply into the
 soil, and you destroy the branches also.
 But let these roots take a firm and ex-
 tensive hold, and we see them shooting
 out scions which in their turn strike
 their radicels into the ground, and ac-

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=quire for themselves an independent vitality." The knowledge of this fact should therefore strongly impress us with the necessity of carefully watching those parts which are likely in the course of the original disease to become sympathetically affected, that we may not have to treat as a disease, that which by proper attention, might have been prevented from becoming any thing more than a symptom.

In the treatment of this disease as in all others, we must be guided wholly by the symptoms; and hence we have it divided into that appropriate to the first, second, and third stages. The progress of the disease from one stage to another should be carefully watched, as it is only by this attention that we can inform ourselves, we are not treating one stage

of it with those remedies, which are peculiar-
 ly adapted to another. When called to a
 patient labouring under the earliest
 symptoms of indigestion (which have
 been enumerated) we may frequently by
 proper attention to diet and exercise, restore
 him to health without subjecting him to
 a strict medical discipline. The diet should
 be such, as will neither offend the stomach
 by its quantity or quality. It should be
 eaten slowly so that it may be thorough-
 ly masticated and impregnated with
 saliva; since that a greater quantity
 than the gastric juice then in the stomach
 can act upon, may not be taken. The due
 performance of the process of mastication,
 is of the utmost consequence to the proper
 digestion of the food. A weak stomach
 will find it difficult to digest even so

small a portion of food, provided it is not
 thoroughly masticated. Particular at-
 -tention should also be paid, to the quan-
 -tity of food taken. The sensation of hun-
 -ger is created by the impression of the
 gastric juice on the stomach, hence
 this sensation can never be felt except
 there be a quantity of that fluid pre-
 -sent. This sensation then should ever be
 particularly attended to by the dyspep-
 -tic, since whatever is taken into the
 stomach during its absence, (or which
 is the same thing during the absence
 of the gastric juice) must remain
 there an undigested mass, irritating
 that organ and giving rise to all those
 evils we have already enumerated. It
 has been remarked, that "the stomach
 when unemployed is always doing mis-

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-chief," and from this observation we ob-
-tain a rule in regard to the eating of
the dyspeptic (viz) that he should eat
frequently and a little at a time.

Concerning the articles that are easiest of di-
-gestion it may be sufficient to observe,
that all game comes under this head, that
white poultry are easy of digestion, that fat
is offensive to the stomach, and that the
most simple manner in which the food
is prepared is the state in which it is
most easily acted upon by the digestive
apparatus. Generally speaking milk will
be found the most appropriate diet for
the dyspeptic invalid, and to be effec-
-tual it must be exclusively allotted.
Where milk disagrees with the stomach,
the best substitute is chocolate divested
of its oily parts by boiling. Drink is to

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...the thirtieth is the ...

be moderately taken at meals, neither abstaining totally from it, as has been recommended, nor yet indulging in it to excess. Particular attention must be paid by the dyspeptic to the exercise, both of his mind and body. We have seen from the experiments of Mr Philip, that in the course of the healthy digestive process, no admixture takes place between the food recently taken into the stomach, and that which has already been acted upon by the gastric juice; hence a rule, that exercise immediately after eating is injurious, in as much as it occasions this mixture to take place. Riding on horseback is the exercise which is perhaps, upon the whole best suited, to a dyspeptic patient. It should however not be taken

for one hour or two after eating, and should never be carried so far as to fatigue. The same rule holds as regards the exercise of the mind (viz) it should never be fatigued. Light reading such as is calculated to amuse is useful, but any thing farther is injurious.

The first indication in the medical treatment of this disease is the relief of the stomach and bowels, which are almost uniformly pained. To empty the stomach an emetic of Ipecac is to be given, provided there is no phlogosis of that organ. Dr Philip thinks the repetition of emetics is injurious as it creates a morbid excitement, and inverts the natural action of the stomach and duodenum. Not to emetic me one to give some gentle aper-

is nient; avoiding in this stage of the disease the neutral salts. As a laxative Rhubarb in the following formula as recommended by Dr Chapman, has been found by him very useful.

Forty pills are to be made of this & 3 given at a dose

{	R ^y . Rhubarb	— 3j
	Common Syrup	— 3j
	oil of Cast. Seed	q ^{ss} 10

When there is epigastric uneasiness &c recommends the following,

A wine glassful of this is to be given 2 or 3 times a day.

{	R ^y Linna	— 3j ^v
	Sennica	— 3j ⁱ
	Boiling water	— Oj

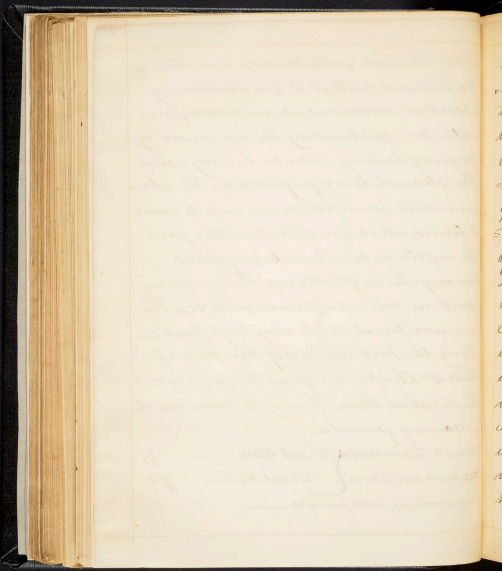
Mr Philip thinks that where the emetic and laxative fail in producing the desired effect we should resort to gentle Stimulents, with a view of correcting the unhealthy secretions. This practice however must obviously prove injurious, when phlogosis

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of the stomach exists. When an acid state of the stomach exists, it is to be corrected by absorbent medicines, as magnesia, lime water, and particularly the lye mixed by pouring boiling water on biccory ashed. The stomach being prepared by the above mentioned remedies we are next to resort to tonics, which are obtained either from the vegetable or mineral kingdoms. Among the vegetable are the quassia, gentian, columbo, Commifortula &c. The mineral tonics rank very high, particularly the preparations of Iron, and of these Dr Chapman gives the preference to the Sulphat Iron. It may be given in the following formula.

This is to be divided into	℞ Sul Iron	3℥
xxx pills, one to be taken	Extract Gentian	ʒss

— four morning, noon, & night. —



There are many other tonics recommended to give tone to the stomach during the first stage of indigestion. I conceive however that I have said enough concerning them, and shall only further remark in regard to tonics in general, that their use is to be abstained from, where any of the symptoms of phlogosis of the stomach exist.

I now proceed to speak of the treatment appropriate to the second stage of the disease, and which may be done in very few words. It is evident from what has been said of the symptoms in this stage, that the stimulating plan adopted in the close of the last stage, would prove highly injurious. We must observe however that although this plan would prove hurtful, yet the

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strength of the patient must be support-
=tee, and hence the most powerful
antiphlogistics are seldom called for.
This however is to be determined solely
by the urgency of the symptoms, re-
=membering that the strength of the
patient will not really, as easily, or ef-
=fectually, as it did in the early stages
of the disease. Leeching and blistering
the epigastrium, frequently not only
removes the pain, but ameliorates
all the other symptoms. Small and re-
=peated doses of mercury in the form
of the blue pill, to correct the secretion
of the liver, are useful in this stage.

The treatment of the
third stage of this disease wants
as I observed when speaking of the
symptoms, lead me into a field far

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too extensive for the necessary limits of this production. I shall therefore close it by insisting strenuously on the absolute necessity that exists in our practice of watching carefully these organic symptoms that we may apply our means of cure before they become themselves diseases which may eventually baffle our utmost skill.

Finis—

